Cervical Dysplasia

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Definition

- Abnormal development of the cervical cells, usually in the transformation zone
- The pap smear is used to SCREEN for these changes
- Definite diagnosis made by BIOPSY (cervical biopsy and/or ECC)

Epidemiology

- Dysplastic changes thought to develop from infection with Human Papilloma Virus (HPV)
- Multiple (>60) subtypes of the virus - some predisposed to oncogenic changes (16, 18), while others predispose to wart-like changes (6, 11)
- Predisposition does not equal diagnosis

Epidemiology (cont.)

- Thought that 50-90% of the reproductive age population has been infected at some time.
- Presence of infection not constant - PCR testing in college population showed previously positive individuals with spontaneous resolution.
- Most carriers asymptomatic.

Detection

- Usually through the use of Pap smear (common disease, reliable test, effective treatment available, severe consequences of not treating, inexpensive test), but may not detect gross lesions on cervix - BIOPSY these.
- For a test to work well, must be performed well.

Performing a Proper Pap

- Undisturbed Cervix - try to leave the endothelium intact (since this is the location of dysplasia); no speculum lubricants except water; collect pap first (before cultures); if copious D/C, blot, don't wipe

Proper Pap (cont.)

- Collecting Cells - WELL visualized cervix; 1st from portio, then endocervix (not with a Q-tip; cytobrush OK in pregnancy)

Proper Pap (cont.)

- Slide Prep - IMMEDIATE application of cells to slide after collection; thin layer on slide; roll cytobrush to deposit cells; IMMEDIATELY spray fixative to prevent air drying
- Paperwork - think of this as a consult to Path - include LMP, WGA, prior Hysterectomy, prior pap/biopsy results

Proper Pap (cont.)

- If you see a gross lesion - BIOPSY IT!!!
- If you don't have the proper equipment, send the patient to a clinic that does.
- Waiting for the pap results is incorrect - the pap is for screening. Once you visualize a cervical abnormality, you're past screening and into diagnostics. Diagnosis is made with biopsy.

Who Needs a Pap?

- ALL women at 18 y.o. or 1st intercourse, whichever comes first.
- Low risk patients - after 3 normal annual paps, then q 2-3 yrs, if reliable for FU (these patients still need an annual exam - breast, pelvic, well woman education)
- High risk pts - annual pap smear

Patients at Risk for Dysplasia

- Multiple sexual partners (>2-3), or sexual partners with multiple partners (lifetime)
- Began intercourse at early age (<18y.o.)
- Partners with prev partner with Cx CA
- Current/previous condyloma/ HPV Infxn
- HIV positive

Pts at Risk for Dysplasia (cont.)

- H/O other STD's
- Immunocompromised pts
- Tobacco, EtOH, other substance abuse
- H/O cervical dysplasia, or cervical, endometrial, vaginal, vulvar CA
- Lower socioeconomic status

Pts at Risk for Dysplasia (cont.)

- Effectively, this includes the large majority of our population.
- Additionally, high patient and provider turnover makes annual FU more reliable.
- Also, an annual pap is good reminder for patients to return for annual women's health exam and education.

Pap Reporting

- Done via the Bethesda System
- Not created prospectively, so will be undergoing revisions; and, not used worldwide
- 3 parts
  - Adequacy of specimen
  - General Categorization (optional)
  - Descriptive Diagnosis

Pap Results - Choices

- LGSIL - ASCUS and CIN I
- HGSIL - CIN II, III
- CIS
- CA
- AGUS
- Reactive Changes
- Benign Cellular Changes

Histopathology of the Pap

- All confirmed on biopsy
- CIN I - dysplastic abnormalities of the cervical epithelial cells in the lower 1/3
- CIN II - abnormalities of the cells into the middle 1/3 (from the basement membrane)
- CIN III- abnormalities extend to the upper 1/3

Histopath of the Pap (cont.)

- CIS - entire epithelial layer completely replace by abnormal cells
- Cx CA - basement membrane has been penetrated by abnormal cells

Management of Results

- Benign Cellular Changes - treat infection or atrophy if present; o/w, FU one year
- Reactive Changes - if prior dysplastic pap, repeat in 6 months
- ASCUS - if first abnormal, repeat in 4-6 mos; if repeat ASCUS, to colpo
- LGSIL, HGSIL, CIS - to colpo
- AGUS - to colpo, consider EmBx

Colposcopy Basics

- Used to diagnose precancerous changes of the cervix
- Magnifying glass allows detailed visual inspection of cervical portio and vagina
- Treatment of cervix with acetic acid or iodinated solution allows identification of areas suspicious for dysplasia (use green filter to view with acetic acid)

Colpo Basics (cont.)

- At initial colpo, if abnormal pap was done less than 3 mos prior, don't repeat (takes 3 mos for normal healing and reepithelialization of cervix)
- Biopsy any or representative areas of cervical dysplasia, or gross lesions
- ECC to evaluate endocervix
- Disposition based on results

Follow-up - After Colpo

- ASCUS, LGSIL - RTC 4 mos for recolpo, biopsy as needed (84% of LGSIL resolves spontaneously)
- HGSIL (about 40% to CA) - LEEP, Cone
- Positive ECC - LEEP, Cone
- Inadequate Colposcopy (Transformation Zone not visualized) - LEEP, Cone
- Persistent LGSIL - consider LEEP

Dysplasia in Pregnancy

- GOAL - assure no invasive CA
- Do normal colposcopy, but no ECC
- Gross lesions - biopsy them
- Selective biopsy for other lesions - much increased bleeding during pregnancy